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APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. Q63516 04/17/2001 Eun-Kyung Lee 5337 09/835,319

7590

**EXAMINER** 

SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2100 Pennsylvania Avenue, N.W. Washington, DC 20037-3202

10/24/2003

ART UNIT PAPER NUMBER

RODRIGUEZ, ARMANDO

2828

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/835,319	LEE ET AL.
	Examin r	Art Unit
	Armando Rodriguez	2828
The MAILING DATE of this c mmunicati n app		rrespondence address
Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM		
<ul> <li>THE MAILING DATE OF THIS COMMUNICATION.</li> <li>Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.</li> <li>If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.</li> <li>If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.</li> <li>Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).</li> <li>Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).</li> </ul>		
Status 1) Responsive to communication(s) filed on		
	— · s action is non-final.	
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is		
closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. <b>Disposition of Claims</b>		
4)⊠ Claim(s) <u>1,2,6,8-10,16 and 18</u> is/are pending in the application.		
4a) Of the above claim(s) is/are withdrawn from consideration.		
5) Claim(s) is/are allowed.		Paul D
6)⊠ Claim(s) <u>1,2,6,8-10,16 and 18</u> is/are rejected.		PAUL IP
7) Claim(s) is/are objected to.	SUPE	RVISORY PATENT EXAMINER
8) Claim(s) are subject to restriction and/or election requirement. TECHNOLOGY CENTER 2800  Application Papers		
9)☐ The specification is objected to by the Examiner	·.	
10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.		
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).		
11)☐ The proposed drawing correction filed on is: a)☐ approved b)☐ disapproved by the Examiner.		
If approved, corrected drawings are required in reply to this Office action.		
12) The oath or declaration is objected to by the Examiner.		
Priority under 35 U.S.C. §§ 119 and 120		
13)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).		
a)⊠ All b)⊡ Some * c)⊡ None of:		
<ol> <li>Certified copies of the priority documents have been received.</li> </ol>		
2. Certified copies of the priority documents have been received in Application No		
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.		
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).		
a) ☐ The translation of the foreign language provisional application has been received. 15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.		
Attachment(s)		
<ol> <li>Notice of References Cited (PTO-892)</li> <li>Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>Information Disclosure Statement(s) (PTO-1449) Paper No(s) 14</li> </ol>	5) Notice of Informal	y (PTO-413) Paper No(s) Patent Application (PTO-152)

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#### **DETAILED ACTION**

### Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 30, 2003 has been entered.

## Response to Arguments

Applicant's arguments with respect to claims 1,2,6,8-10,16,18 have been considered but are most in view of the new ground(s) of rejection.

# Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,6,8-10,16,18 are rejected under 35 U.S.C. 102(b) as being anticipated by Wang et al (PN 5,729,563).

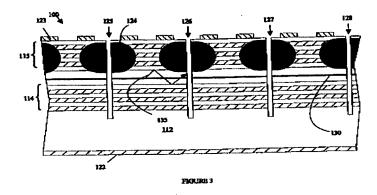
Wang et al discloses an improved method of isolating an array of surface emitting lasers, as illustrated in figure 3.

Regarding claims 1,6,10,16,

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In figure 3 Wang et al illustrates an array of conventional surface emitting lasers (SEL), where SEL has a bottom mirror (114), an active region (130), top mirror (115), top electrodes (123) and sharing a common substrate (112) and a common bottom electrode (122), as described in column 3 lines 37-67. Column 3 lines 1-5, describes the mirrors as formed from alternating layers having different indices of refraction. Column 3 lines 60-65, describes providing the laser array with trenches (125-128) and column 4 lines 1-5, describes the trenches as being empty and providing separate SEL.



Regarding claim 2,

Column 3 lines 16-19, describes the top mirror as having implanted a high resistivity region (26) for confining the current flow, where such region is illustrated in figure 3 as (124).

Regarding claim 8,

Column 3 lines 1-5, describes the mirrors as formed from alternating layers having different indices of refraction.

Regarding claims 9,18,

Figure 3 illustrates a lower electrode (122) on the substrate and a top electrode (123) on each of the SEL.

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### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Armando Rodriguez whose telephone number is (703) 308-6218. The examiner can normally be reached on 10-hour day / M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-

4881.

Armando Rodriguez

Examiner

Art Unit 2828

Paul Ip

Supervisor

Art Unit 2828

AR/PI